



**Fixed Foam Piping at Gas Well Sites**  
**3/15/2010**

The purpose of this letter is to clarify fire code requirements regarding fixed foam piping at saltwater tank batteries servicing natural gas wells per Section 3404.2.9.1 of the adopted fire code:

**3404.2.9.1 Fire protection.**

Fire protection for above-ground tanks shall comply with Sections 3404.2.9.1.1 through 3404.2.9.1.4.

**3404.2.9.1.1 Required foam fire protection systems.**

When required by the fire code official, foam fire protection shall be provided for above-ground tanks, other than pressure tanks operating at or above 1 pound per square inch gauge (psig) when such tank, or group of tanks spaced less than 50 feet apart measured shell to shell, has a liquid surface area in excess of 1,500 square feet, and is in accordance with one of the following:

1. Used for the storage of Class I or II liquids.
2. Used for the storage of crude oil.
3. Used for in-process products and is located within 100 feet (30 480 mm) of a fired still, heater, related fractioning or processing apparatus or similar device at a processing plant or petroleum refinery as herein defined.
4. Considered by the fire code official as posing an unusual exposure hazard because of topographical conditions; nature of occupancy, proximity on the same or adjoining property, and height and character of liquids to be stored; degree of private fire protection to be provided; and facilities of the fire department to cope with flammable liquid fires.

While the fire code does specify foam system requirements, the surface area criterion eliminates typical saltwater tank installations. In addition, the height and setback provisions of Section 15-42 of the Gas Well Drilling Ordinance support manual application of extinguishing foam as well as non-intervention tactics. For these reasons, fixed foam protection systems are not required for compliant tanks storing formation liquids (saltwater) at gas well sites. The relative production of flammable or combustible liquids and the uncertainty that fixed piping would be intact upon fire department arrival do not justify enacting additional fire code requirements at compliant saltwater tank installations.

Landon Stallings  
Fire Marshal

**FIRE DEPARTMENT – BUREAU OF FIRE PREVENTION**